

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A bearing comprising:
a temperature conducting housing;
a bearing element disposed within the housing; an oil sump to house lubricant for
the bearing element; and
C at least one motor driven electric fan mounted to the bearing housing, wherein the
at least one fan is adapted to transfer heat from the bearing housing by forced convection;
and
a temperature sensor disposed within the bearing housing adjacent to the bearing
element and adapted for determining a temperature within the bearing housing.
2. (original) The bearing of claim 1, wherein the bearing housing includes
an oil sump, and wherein the at least one fan is disposed adjacent to the oil sump.
3. (original) The bearing of claim 1, wherein the bearing housing includes
a plurality of cooling fins.
4. (canceled)
5. (currently amended) The bearing of claim 4-1, wherein the temperature
sensor is adapted for determining the temperature of the bearing element.
6. (currently amended) The bearing of claim 4-1, wherein the temperature
sensor is adapted for determining the temperature of an oil sump within the bearing
housing.

7. (currently amended) The bearing of claim 4-1, further comprising a logic controller electrically coupled to the at least one fan and to the temperature sensor wherein the logic controller is adapted to receive a signal from the temperature sensor, process the signal, and operate the at least one fan according to the received signal.

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8. (original) The bearing of claim 7, wherein the signal from the temperature sensor is generated according to the temperature within the housing.

9. (original) The bearing of claim 8, wherein an upper temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one fan on based upon a relationship between a sensed temperature and the upper temperature limit.

10. (original) The bearing of claim 9, wherein a lower temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one fan off based upon a relationship between a sensed temperature and the lower temperature limit.

11. (original) The bearing of claim 8, wherein the at least one fan comprises at least one primary fan and at least one secondary fan.

12. (original) The bearing of claim 11, wherein a first temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one primary fan on based upon a relationship between a sensed temperature and the first temperature limit.

13. (original) The bearing of claim 12, wherein a second temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one secondary fan on based upon a relationship between a sensed temperature and the second temperature limit.

14. (original) The bearing of claim 13, wherein a third temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one secondary fan off based upon a relationship between a sensed temperature and the third temperature limit.

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15. (original) The bearing of claim 14, wherein a fourth temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one primary fan off based upon a relationship between a sensed temperature and the fourth temperature limit.

16. (original) The bearing of claim 8, wherein the at least one fan is adapted to operate at variable speeds and wherein the logic controller is adapted to control the speed of the at least one fan.

17. (currently amended) A method for controlling the temperature of a bearing having a housing and a bearing element disposed within the housing, the method comprising:

mounting at least one fan on the bearing housing to remove heat from bearing element lubricant disposed within the bearing housing;

disposing a temperature sensor within the bearing housing adjacent to the bearing element;

electrically coupling a logic controller between the at least one fan and the temperature sensor; and

adapting the logic controller to receive a signal from the temperature sensor and to operate the fan at various speeds in response to the signal received.

18. (canceled)

19. (currently amended) The method of claim 17, wherein the housing includes an oil sump and disposing a temperature sensor comprises disposing the temperature sensor adjacent to the bearing element and within the oil sump.

20. (original) The method of claim 17, comprising pre-selecting a temperature range in which the fan will operate.

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21. (currently amended) The method of claim 18-17, wherein mounting the at least one fan comprises mounting at least one primary fan and at least one secondary fan.

22. (original) The method of claim 17, comprising pre-selecting at least first and second temperature limits and adapting the logic controller to operate at least one primary fan in response to a signal received which corresponds to the first temperature limit and to operate at least one secondary fan in response to a signal received which corresponds to the second temperature limit.

23. (currently amended) A bearing comprising:
a housing;
a bearing element disposed within the housing;
means for introducing forced air flow over an exterior surface of the bearing housing;

means disposed adjacent to the bearing element for discerning a temperature of an the bearing element of the bearing; and

means for variably controlling the amount of forced air flow in correlation with the temperature discerned of the bearing element of the bearing.

24. (original) The bearing of claim 23, wherein the housing includes an oil sump, and wherein the means for introducing forced air flow includes a fan disposed adjacent to the oil sump.

25. (canceled).

26. (currently amended) A system comprising:

a plurality of bearings, each bearing including a thermally conductive housing, a bearing element disposed within the housing;

a plurality of fans affixed to the housing of each bearing;

a temperature sensor disposed within the housing of each bearing adjacent to the bearing element and corresponding to the fans affixed on the same bearing; and

a logic controller adapted to receive a signal from each temperature sensor and to operate at least one of the corresponding fans at various speeds according to the received signal.

27. (previously amended) The system of claim 26, further comprising an oil sump formed in each bearing housing, and wherein at least one of the fans is disposed adjacent to each oil sump.